



UNITED STATES DEPARTMENT OF COMMERCE

United States Patent and Trademark Office

Address: COMMISSIONER OF PATENTS AND TRADEMARKS
Washington, D.C. 20231

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
09/364,072	07/30/99	SONG	0630-0961P

002292

WM21/1024

BIRCH STEWART KOLASCH & BIRCH

PO BOX 747

FALLS CHURCH VA 22040-0747

EXAMINER

DAVIS, D

ART UNIT

PAPER NUMBER

2652

DATE MAILED: 10/24/01

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary

Application No.

09/364,072

Applicant(s)

SONG, GEUN HYUK

Examiner

David D. Davis

Art Unit

2652

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3,5,7-10,12,13,15,16,18 and 21 is/are pending in the application.

4a) Of the above claim(s) ____ is/are withdrawn from consideration.

- 5) ☐ Claim(s) ____ is/are allowed.

- 6) ☒ Claim(s) 1-3,5,7-10,12,13,15,16,18 and 21 is/are rejected.

- 7) ☐ Claim(s) ____ is/are objected to.

- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) ✓
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) ✓
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 11.
- 4) ☐ Interview Summary (PTO-413) Paper No(s) ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

Art Unit: 2652

DETAILED ACTION

1. The indicated allowability of claims 1-3, 5, 7-10, 12, 13, 15, 16, 18 and 21 is withdrawn in view of the newly discovered reference(s) to Darrieus (US 2,659,243); Favrot (US 3,203,273) and Takeuchi et al (US 6,295,269). Accordingly, the finality of the rejection of the last Office action is withdrawn. Rejections based on the newly cited reference(s) follow.

Response to Amendment

2. Receipt is acknowledged of Amendment B, paper #10, received September 26, 2001, which has been entered into the instant application.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

4. Claims 1-3, 5, 7-8 are rejected under 35 U.S.C. 102(e) as being clearly anticipated by Takeuchi et al (US 6,295,269).

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

Art Unit: 2652

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

7. Claims 9, 10, 12, 13, 15, 16, 18 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Takeuchi et al (US 6,295,269) in view of Araki (JP 62-24052). With respect to claims 1-3, 5, 7-8 Takeuchi et al discloses the claimed invention. However, Takeuchi et al is silent as to an inclined surface. Takeuchi et al is also silent as to a metallic portion in the racing space and a friction rough surface in the racing space. Takeuchi et al is additionally as to ribs spaced apart at an angle of 90 degrees.

Araki shows in figure 1 an inclined surface.

Official notice is taken of the fact that metallic and friction rough surfaces are notoriously old and well known in the disk drive art.

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to provide the auto balancing apparatus of Takeuchi et al with an inclined surface as taught by Araki. The rationale is as follows: one of ordinary skill in the art at the time the invention was made would have been motivated to provide an auto balancing apparatus with

Art Unit: 2652

an inclined surface "To generate the balance state in a **moment** . . ." (Emphasis added. See the abstract of Akraki) if an imbalance state occurs.

It also would have been obvious to a person having ordinary skill in the art at the time the invention was made to provide known surfaces, such as metallic and friction rough, in the racing space of Takeuchi et al and having a plurality of balls for balancing. The rationale is as follows: one of ordinary skill in the art at the time the invention was made would have been motivated to provide known surfaces, such as metallic and friction rough, in a racing space to optimize the balancing of the turntable by modifying movement/rotation of the balls with the known surface.

It additionally would have been obvious to a person having ordinary skill in the art at the time the invention was made to provide the auto balancing apparatus of Takeuchi et al with ribs spaced apart at an angle of 90 degrees. The rationale is as follows: The purpose of the ribs is to constrain the movement of the plurality of balls. The ribs need not be spaced apart at an angle of 90 degrees in order to constrain the movement of the plurality of balls. Realizing this, one of ordinary skill in the art at the time the invention was made would have been motivated to provide ribs spaced apart at an angle of 90 degrees, which is well within the purview of a skilled artisan and absent an unobvious result, to optimize the balancing of the rotating apparatus for a specific speed.


Conclusion

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to David D. Davis whose telephone number is (703) 308-1503. The examiner can normally be reached on Mon., Tues., Thurs. and Fri. between 7:30-6:00. The fax

Art Unit: 2652

phone number for the organization where this application or proceeding is assigned is (703) 872-9314.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-3900. Any other inquiry should be directed to the customer service center whose telephone number is (703) 306-0377.



David D. Davis
Primary Examiner
Art Unit 2652

ddd
October 23, 2001